SEQUENCE LISTING

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PABO, Carl O.

<120> DIMERIZING PEPTIDES

<130> 8325-1004 / M4-US1

<140> 09/636,243
<141> 2000-08-10

<150> 60/148,422
<151> 1999-08-11

<160> 83

<170> PatentIn Ver. 2.0

<210> 1
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a16

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<223> Description of Artificial Sequence: exemplary motif characterizing C2H2 class proteins

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<222> (2)
<223> where 2-4 Xaa's are present

<220>
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<222> (17)
<223> where 3-5 Xaa's are present

<220>
<221> SITE
<222> (2)
<223> where Xaa is any amino acid

<220>
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<222> (4)..(15)
<223> where Xaa is any amino acid

<220>
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<223> where Xaa is any amino acid

<400> 1

Cys Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa His
1 5 10 15

Xaa His

<210> 2
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
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<400> 2
Asn Asn Gly Lys
1

<210> 3
<211> 9
<212> DNA
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<220>
<223> Description of Artificial Sequence: zinc finger protein bind sequence

<400> 3
ggcgtagac 9

<210> 4
<211> 9
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: zinc finger protein bind sequence

<400> 4
ggcgacgta 9

<210> 5
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: peptide linker

<400> 5
Thr Gly Glu Lys Pro
1 5

<210> 6
<211> 5
<212> PRT
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<220>
<223> Description of Artificial Sequence: linker

<400> 6
Gly Gly Gly Gly Ser
1 5

<210> 7
<211> 8
<212> PRT
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<220>
<223> Description of Artificial Sequence: linker

<400> 7
Gly Gly Arg Arg Gly Gly Gly Ser
1 5

<210> 8
<211> 9
<212> PRT
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<220>
<223> Description of Artificial Sequence: linker

<400> 8
Leu Arg Gln Arg Asp Gly Glu Arg Pro
1 5

<210> 9
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: linker

<400> 9
Leu Arg Gln Lys Asp Gly Gly Gly Ser Glu Arg Pro

1 5 10

<210> 10
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: linker

<400> 10
Leu Arg Gln Lys Asp Gly Gly Gly Ser Gly Gly Gly Ser Glu Arg Pro
1 5 10 15

<210> 11
<211> 18
<212> PRT
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<220>
<223> Description of Artificial Sequence: component
finger of zinc finger protein

<220>
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<222> (17)
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<400> 11
Cys Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa His
1 5 10 15

Xaa His

<210> 12
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA binding domain F1

<400> 12
Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg Arg Phe Ser Arg Ser Asp
1 5 10 15

Glu Leu Thr Arg His Ile Arg Ile His Thr Gly Gln Lys Pro
20 25 30

<210> 13
<211> 28
<212> PRT
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<220>
<223> Description of Artificial Sequence: DNA binding domain F2

<400> 13
Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser Arg Ser Asp His Leu
1 5 10 15

Thr Thr His Ile Arg Thr His Thr Gly Glu Lys Pro
20 25

<210> 14
<211> 38
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA binding site

<400> 14
ggttgcagtg ggcgcgccca cagtacttga acgtaacg 38

<210> 15
<211> 34
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: DNA binding
site

<400> 15
cgttacgttc aagtactgtg ggcgcgccca ctgc 34

<210> 16
<211> 12
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<220>
<223> Description of Artificial Sequence: DNA binding
site

<400> 16
tgggcgtatg ct 12

<210> 17
<211> 12
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<220>
<223> Description of Artificial Sequence: DNA binding
site

<400> 17
agcatacgcc ca 12

<210> 18
<211> 57
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<220>
<223> Description of Artificial Sequence: DNA binding
site

<400> 18
ggaattcctg atcaagatct ggtcacgtcc ataggctagg catgtcaagg ctgtatg 57

<210> 19
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
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site

<400> 19
gggatccact cgcgaacgcg tccttgtagt gggcgcgccc acatacagcc ttgacat 57

<210> 20
<211> 12
<212> DNA
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<220>
<223> Description of Artificial Sequence: inverted
repeat site

<400> 20
tgggcgcgcc ca 12

<210> 21
<211> 14
<212> DNA
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<220>
<223> Description of Artificial Sequence:
self-complementary oligonucleotide

<400> 21
atgggcgcgc ccat 14

<210> 22
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: peptide
extension

<220>
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<222> (1)
<223> "His" is numbered 89

<220>
<221> SITE
<222> (15)
<223> "Arg" is numbered 103

<400> 22
His Pro Met Asn Asn Leu Leu Asn Tyr Val Val Pro Lys Met Arg
1 5 10 15

<210> 23
<211> 34
<212> DNA
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: DNA site used
for affinity selection

<400> 23
gcagtgggcg cgcccacagt acttgaacgt aacg 34

<210> 24
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: peptide 1

<400> 24
Gly Gly Gly Gln Trp Leu Gly Thr Trp Glu Trp Tyr Gly Pro Lys
1 5 10 15

<210> 25
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: peptide 2

<400> 25
Tyr Glu Lys Ile Ser Val Glu Gly Ile Lys Asp Val Arg Val Arg
1 5 10 15

<210> 26
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: peptide 3

<400> 26
Asn Val Ser Ile Glu Gly Val Leu Lys Tyr Tyr Arg Gly Leu Arg
1 5 10 15

<210> 27
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: peptide 4

<400> 27

Arg Ser Cys Gly Leu Asp Tyr Glu Gly Tyr Trp Leu Lys Leu Lys
1 5 10 15

<210> 28
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: peptide 5

<400> 28
Ser Arg Trp Leu Glu Glu Glu Val Ser Arg Leu Leu Leu Leu Arg
1 5 10 15

<210> 29
<211> 15
<212> PRT
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<220>
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<400> 29
Gly Glu Ala Leu Asp Arg Phe Glu Arg Glu Met Lys Leu Met Arg
1 5 10 15

<210> 30
<211> 5
<212> PRT
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<220>
<223> Description of Artificial Sequence: sequential block reoptimization sequence

<400> 30
Gly Gly Gly Gln Trp
1 5

<210> 31
<211> 5
<212> PRT
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<220>
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<400> 31

His Pro Met Asn Asn
1 5

<210> 32
<211> 5
<212> PRT
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<220>
<223> Description of Artificial Sequence: sequential block reoptimization sequence

<400> 32
Pro Pro Ser Thr Glu
1 5

<210> 33
<211> 5
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<220>
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<400> 33
Gln Lys Tyr Gly Asp
1 5

<210> 34
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<400> 34
Glu Asn Tyr Glu Lys
1 5

<210> 35
<211> 5
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<220>
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<400> 35
Leu Gly Thr Trp Glu
1 5

<210> 36
<211> 5
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<220>
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<400> 36
Leu Leu Asn Tyr Lys
1 5

<210> 37
<211> 5
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<220>
<223> Description of Artificial Sequence: sequential block reoptimization sequence

<400> 37
Leu Leu Asn Tyr Val
1 5

<210> 38
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<220>
<223> Description of Artificial Sequence: sequential block reoptimization sequence

<400> 38
Leu Leu Asp Tyr Ile
1 5

<210> 39
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<220>
<223> Description of Artificial Sequence: sequential

block reoptimization sequence

<400> 39
Leu Leu Asn Tyr Ile
1 5

<210> 40
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<220>
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<400> 40
Leu Leu Gln Tyr Val
1 5

<210> 41
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<220>
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<400> 41
Leu Leu Glu Tyr Lys
1 5

<210> 42
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<220>
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<400> 42
Leu Leu Asp Tyr Val
1 5

<210> 43
<211> 5
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block reoptimization sequence

<400> 43
Leu Leu Asn Tyr Val
1 5

<210> 44
<211> 5
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block reoptimization sequence

<400> 44
Trp Tyr Gly Pro Lys
1 5

<210> 45
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<220>
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block reoptimization sequence

<400> 45
His Pro Lys Met Lys
1 5

<210> 46
<211> 5
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<220>
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block reoptimization sequence

<400> 46
Pro Ala Lys Ile Arg
1 5

<210> 47
<211> 5
<212> PRT

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<220>
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<400> 47
Val Pro Lys Ser Arg
1 5

<210> 48
<211> 5
<212> PRT
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<220>
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block reoptimization sequence

<400> 48
Val Pro Arg Leu Lys
1 5

<210> 49
<211> 5
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<220>
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block reoptimization sequence

<400> 49
Ala Pro Lys Leu Arg
1 5

<210> 50
<211> 5
<212> PRT
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<220>
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block reoptimization sequence

<400> 50
His Ala Lys Ile Arg
1 5

<210> 51

<211> 5
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<220>
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<400> 51
Val Val Lys Met Arg
1 5

<210> 52
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block reoptimization sequence

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Pro Val Lys Met Arg
1 5

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block reoptimization sequence

<400> 53
Val Pro Lys Gln Arg
1 5

<210> 54
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<220>
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Val Pro Lys Met Arg
1 5

<210> 55
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<400> 55
Val Arg Lys Leu Arg
1 5

<210> 56
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Ser Arg Trp Leu Glu
1 5

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<220>
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<400> 57
Phe Arg Trp Leu Glu
1 5

<210> 58
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<220>
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<400> 58
Gln Pro Trp Leu Thr
1 5

<210> 59
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<212> PRT
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<220>
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<400> 59
Pro Pro Trp Leu Ile
1 5

<210> 60
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<220>
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<400> 60
Pro Pro Trp Leu Lys
1 5

<210> 61
<211> 5
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<220>
<223> Description of Artificial Sequence: sequential block reoptimization sequence

<400> 61
Pro Ala Trp Leu Thr
1 5

<210> 62
<211> 5
<212> PRT
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<220>
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<400> 62
Pro Ala Trp Leu Ala

1 5

<210> 63
<211> 5
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<220>
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<400> 63
Trp Ala Trp Leu Asp
1 5

<210> 64
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<220>
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<400> 64
Pro Thr Trp Leu Thr
1 5

<210> 65
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<220>
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<400> 65
Glu Glu Val Ser Arg
1 5

<210> 66
<211> 5
<212> PRT
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<220>
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<400> 66
Glu Tyr Leu Glu Ser
1 5

<210> 67
<211> 5
<212> PRT
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<220>
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<400> 67
Asp Tyr Val Thr Gln
1 5

<210> 68
<211> 5
<212> PRT
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<220>
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<400> 68
Asp Tyr Leu Ala Asp
1 5

<210> 69
<211> 5
<212> PRT
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<220>
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<400> 69
Glu Tyr Leu Thr Phe
1 5

<210> 70
<211> 5
<212> PRT
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<220>
<223> Description of Artificial Sequence: sequential

block reoptimization sequence

<400> 70
Gln Tyr Leu Glu Asp
1 5

<210> 71
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
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<400> 71
Asp Tyr Val Ser Gln
1 5

<210> 72
<211> 5
<212> PRT
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<220>
<223> Description of Artificial Sequence: sequential block reoptimization sequence

<400> 72
Ser Tyr Leu Asp Lys
1 5

<210> 73
<211> 5
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<220>
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<400> 73
Glu Tyr Met Ser Asp
1 5

<210> 74
<211> 5
<212> PRT
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<220>
<223> Description of Artificial Sequence: sequential block reoptimization sequence

<400> 74
Leu Leu Leu Leu Arg
1 5

<210> 75
<211> 5
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<213> Artificial Sequence

<220>
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<400> 75
Met Arg Leu Trp Arg
1 5

<210> 76
<211> 5
<212> PRT
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<220>
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<400> 76
Met Arg Gly Trp Lys
1 5

<210> 77
<211> 5
<212> PRT
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<220>
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<400> 77
Met Arg Lys Trp Arg
1 5

<210> 78
<211> 5
<212> PRT

<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: sequential
block reoptimization sequence

<400> 78
Met Arg Lys Trp Lys
1 5

<210> 79
<211> 5
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block reoptimization sequence

<400> 79
Met Gly Val Met Arg
1 5

<210> 80
<211> 27
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<220>
<223> Description of Artificial Sequence: ZIF1

<400> 80
Pro Tyr Ala Cys Pro Val Glu Ser Cys Asp Arg Arg Phe Ser Arg Ser
1 5 10 15

Asp Glu Leu Thr Arg His Ile Arg Ile His Thr
20 25

<210> 81
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: GLI1

<400> 81
Glu Thr Asp Cys Arg Trp Asp Gly Cys Ser Gln Glu Phe Asp Ser Gln
1 5 10 15

Glu Gln Leu Val His His Ile Asn Ser Glu His Ile

20 25

<210> 82
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: GLI2

<400> 82
Glu Phe Val Cys His Trp Gly Gly Cys Ser Arg Glu Leu Arg Pro Phe
1 5 10 15

Lys Ala Gln Tyr Met Leu Val Val His Met Arg Arg His Thr
20 25 30

<210> 83
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: SWI5

<400> 83
Thr Phe Glu Cys Leu Phe Pro Gly Cys Thr Lys Thr Phe Lys Arg Arg
1 5 10 15

Tyr Asn Ile Arg Ser His Ile Gln Thr His Leu
20 25